

upon examination that they were brought here in earth in flower pots, though from what locality I could not fix. The banded form was first introduced, like that in the top of the box sent by this mail. I have planted several colonies in this region and they have all done well and are breeding rapidly; as evidence of this I collected over 400 specimens in about one hour's time in a circle, the radius of which was not more than 25 yards. I send by this mail a small box containing the different varieties of color and stripe collected up to date. If you can give me the names of any parties who would be interested in them, it will give me great pleasure to send specimens."

The series comprises many of the band combinations seen in European specimens. The shells seem to be indistinguishable from natives of the old world. The English conchologists have attempted to catalogue and name the color varieties of these five-banded snails—the *Pentatenuia* of Schmidt—and with a view to ascertaining just what forms are represented in America. I sent the specimens from Lexington to Mr. T. D. A. Cockerell, of West Cliff, Colorado, who kindly furnished me the list of some fifteen named forms. Mr. Cockerell writes: "The specimens could not in any way be distinguished from those of Europe. It will be interesting to compare another series with the present from the same locality five or ten years hence, and see whether the environment has greatly affected the variation. Indeed, it would be good to collect and catalogue say two hundred and fifty specimens every year, if they are numerous enough."

It would be interesting to observe whether the several color varieties intercross freely, or prefer to breed with individuals of their own color-pattern, and so perpetuate and intensify the color-races. If the latter be true, it will tend to establish the theory of "divergent evolution through cumulative segregation," by which Mr. Gulick explains the divergence of the numerous species of *Achatinella* inhabiting the same districts of the Sandwich Islands, and living apparently under identical environments.

SCALARIA ANGULATA IN NEW JERSEY.

ED. NAUTILUS, Dear Sir:

In response to the request appended to the catalogue of Southern New Jersey Marine Shells, published in the July number of the

NAUTILUS, I have received from Mr. Uselma C. Smith, of Philadelphia, a fine specimen of *Scalaria turricula* Sowb. found by him at Anglesea, New Jersey, July 20, 1889. This is essentially a West Indian species, and, so far as can be learned, has not heretofore been secured north of Jacksonville, Florida, where the specimen now in the Philad'a Academy was collected by Gen'l. F. E. Spinner.

Quite a number of *Scalaria angulata* Say, were also secured by Mr. Smith and son, at the same time and place. These were all "dead shells" but in excellent condition.

Although Prof. A. E. Verrill has reported this species as "occurring on the outer beach of Egg Harbor" it must have appeared there very rarely indeed, as the writer has searched that particular beach many scores of times during the last twenty-five years without discovering a vestige of it.

With this single exception there appears to be no authentic evidence of its presence on the New Jersey coast prior to the date above given. The finding of *S. turricula* so far North together with living *Modiola tulipa* Lam. suggests the presence of other West Indian forms in the same locality. For this reason it is hoped that collectors who have the opportunity will make a thorough search of that part of the coast especially.

Mr. Smith's discovery near the same point of living *Littorina littoria* Linn, is also of interest to the student, as it probably is the most southern locality from which these well-known denizens of the rocky coasts of New England have been reported.

JOHN FORD.

Philadelphia, July, 1889.

NOTES ON FLORIDAN SHELLS.

BY F. C. BAKER.

While pursuing Conchological studies at Micco, Brevard Co., Florida, this last winter, I had opportunity to compare the species which are common to both the Northern and Southern shores.

The little *Gemma gemma* Totten, I found quite plentiful in the Indian River, and specimens of *Bulla solitaria* Say, were not uncommon. *Cylichna oryza* Totten, and *Utriculus canaliculatus* Say, both species being common at the North, were taken in considerable quantity in the dredge.